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THE EGO-CENTRIC PREDICAMENT[1]

I SHALL deal in the present paper with a problem that is sufficiently limited to justify the hope that it may be solved on its merits. I shall seek to discover whether a certain circumstance, which has never been disputed, does or does not constitute evidence for a theory that has been much disputed. The circumstance I shall call *the ego-centric predicament*, and the theory, *ontological idealism*. I shall not attempt to determine the truth of ontological idealism, except in so far as that theory is established by an appeal to the ego-centric predicament. Furthermore, I do not attribute either the theory or the argument, in the form in which I present them, to any individual philosopher. My statement is intended to contain propositions that approach as exactly as any proposition can to a theory and an argument that are among the commonplaces of philosophy. But since the attempt to state the theory has raised doubts in my mind as to the possibility of stating it at all, and since I have found an exact statement of the argument to be equivalent to its refutation, I can not reasonably suppose that any one ever deliberately assented to such statements. Inexact discourse can not be criticized until it has first been converted into definite propositions; and these can never, with any certainty, be identified with the original assertions. For this reason polemics directed against historical opinions are like to prove unconvincing and futile. I propose, then, to examine certain propositions which I have myself defined. But, at the same time, I hope that what I have to say will be recognized as having an important bearing on traditional issues.

What I mean by *ontological idealism* is best expressed by the proposition: Everything (T) is defined by the complex, I know T. For the purposes of this proposition the "I" is in no need of any definition beyond what it contains from its being the initial term in

[1] Read before the American Philosophical Association, at New Haven, December, 1909.

this complex. In order to make it plain that the term is generalized, I shall substitute *ego,* or *E,* for the pronoun. The term *T* is primarily distinguished from other terms only in that it has unlimited denotation; it refers to anything and everything. It is desirable that the operation or relation "know" should be freed from its narrower intellectualistic meaning; and it will, therefore, prove convenient to use the expression R^c, to mean any form of consciousness that relates to an object. Thus R^c may refer to thinking, remembering, willing, perceiving, or desiring. I am justified in denominating it as a relation, because in the theory and in the argument which I am examining it plays the part of the connecting link through which *E* and *T* form one complex. Ontological idealism is, then, a name for the proposition: $(E)R^c(T)$ defines *T*.

It will be observed that the proposition asserts that *the specific relation* R^c obtains between *E* and *T*. Ontological idealism is not to be confused, therefore, with a theory which simply asserts that *some* relation to *E* is definitive of *T*. Such a theory might be offered on the following grounds. No item in the universe can escape being related to every other item in the universe. Therefore, since there is at least one *E* in the universe, no *T* can escape being related to it. But a term is defined by all of its relations, hence every *T* is defined by its relation to an *E*. But such a theory would be trivial, because it would attach no peculiar importance to the relationship singled out for special mention. On the same ground one could construct a theory to the effect that *T* is defined by its relation to the number 7, or to Washington's crossing the Delaware, or to the flower in the crannied wall. There is an interminable series of such ontologies, and if established on such grounds, idealism would be only one of infinitely many negligible alternatives.

Not only does ontological idealism assert the specific relation R^c, but it asserts that this relation defines *T* as *T*'s other relations do not. In other words, "definition" is intended in a sense in which some, but not all, relations are definitive. Otherwise, the theory would again become trivial and negligible. No theory of relations can neglect the difference, for purposes of definition, between a relation like that of a moving body to the masses of surrounding bodies, and a relation like that between a man's fortunes and his horoscope (or, "that part of the ecliptic which is on the eastern horizon at the instant of his nativity"). If the latter type of relation were as definitive as the former, then there would be no ground for preferring astronomy to astrology, or an idealistic ontology to any one of a number of others. Thus, every *T* is in the same universe with the number 7. Expressing the relation "with" by the symbol R^w, we can construct an ontological proposition to the effect that, $(7)R^w(T)$

defines (T). If ontological idealism is to be distinguished from the infinitely many negligible propositions which may thus be asserted, it must be contended that $R^c(E)$, is in some sense necessary to T, while $R^w(7)$, $R^w(8)$, etc., are not.

Any remaining doubt of this must be dispelled, when it is observed that the only ground on which it would be possible to assert the universal proposition, every $(T)R^c(E)$, is the discovery of the necessity of the relationship in particular instances. For complete induction is evidently out of the question. Speaking generally, the assertion that a thing is definable by all of its relations, can never throw any light on the relations that it does in truth possess. For that purpose the thing must be regarded as defined by some relations only. Before, then, it can be shown that everything possesses the relation R^c, that relation must be regarded as peculiarly indispensable to it. $R^c(E)$ must be shown to be necessary to T, as two dimensions are necessary to a plane, or hydrogen and oxygen to water.

I desire in the present investigation to leave out of consideration a rapidly growing doubt as to the possibility of any such branch of knowledge as ontology in the traditional sense. Thus it may well be that the failure of the materialistic ontology is due not so much to the special limitations of the concept *matter,* as to the impossibility of obtaining any concept that shall have the unlimited denotation and connotation attributed to being or reality. Indeed, I do not feel at all sure that the words "being" and "reality" mean anything in exact discourse. But I waive that general question for the sake of isolating a narrower issue.

Ontological idealism, then, is a theory to the effect that T necessarily stands in the relation R^c to an E, or that the relationship $R^c(E)$ is indispensable to T. Now the attempt to prove this theory at once reveals a predicament that might otherwise escape notice. One must attempt to discover the precise nature of the modification of T by $R^c(E)$; but one promptly encounters the fact that $R^c(E)$ can not be eliminated from one's field of study, because "I study," "I eliminate," "I think," "I observe," "I investigate," etc., are all cases of $R^c(E)$. In short, $R^c(E)$ is peculiarly ubiquitous. There can be no question concerning the fact; it owes its importance in the estimation of philosophers to its being one of the few facts to which philosophy itself originally called attention. Science has occasion to eliminate errors of judgment and relativities of sense, but has no occasion to eliminate consciousness altogether; and therefore has not discovered that it is impossible. We can not, then, disagree as to the fact, nor as to its peculiarly philosophical or epistemological significance. But we are still left in doubt as to what the fact proves with reference to the problem

which revealed it. My contention is that it proves nothing; or rather that it proves only the impossibility of using a certain method to solve the problem. In other words, it is not an argument, but a methodological predicament. Let me further elaborate this predicament.

In order to discover if possible exactly how a T is modified by the relationship $R^e(E)$, I look for instances of T *out* of this relationship, in order that I may compare them with instances of T *in* this relationship. But I can find no such instances, because "finding" is a variety of the very relationship that I am trying to eliminate. Hence I can not make the comparison, nor get an answer to my original question by this means. But I can not conclude that there are no such instances; indeed, I now know that *I should not be able to discover them if there were.*

Again, with a view to demonstrating the modification of T by $R^e(E)$, I compare T before and after it has entered into this relationship with some E other than myself. But in making the comparison, I institute the relationship with myself, and so am unable to free T *altogether* from such relationships.

Again, within my own field of consciousness, I may attempt to define and subtract the cognitive relationship, in order to deal exclusively with the residuum. But after subtracting the cognitive relationship, I must still "deal with" the residuum; and "dealing with" is a variety of the very relationship which I sought to banish.

Finally, just in so far as I do actually succeed in eliminating every cognitive relationship, I am unable to observe the result. Thus if I close my eyes I can not see what happens to the object; if I stop thinking I can not think what happens to it; and so with every mode of knowledge. In thus eliminating all knowledge I do not experimentally eliminate the thing known, but only the possibility of knowing whether that thing is eliminated or not.

This, then, is what I mean by the ego-centric predicament. It is a predicament in which every investigator finds himself when he attempts to solve a certain problem. It proves only that it is impossible to deal with that problem in the manner that would be most simple and direct. To determine roughly whether a is a function of b, it is convenient to employ Mill's "Joint Method of Agreement and Difference," that is, to compare situations in which b is and is not present. But where b is "I know," it is evidently impossible to obtain a situation in which it is not present without destroying the conditions of observation. In other words, the problem of determining the modification of things by the knowing of them is a uniquely difficult problem. The investigator here labors under a peculiar embarrassment. But this fact affords no proper ground

for any inference whatsoever concerning the true solution of the problem; hence it affords no argument for any theory in the matter, such as ontological idealism.

For the purpose of further illustration, and in order to suggest specific historical applications, let me consider several varieties of ontological idealism that gain illegitimate support from this predicament. The varieties which I propose here to examine are distinguished by the type of dependence on $R^e(E)$ which is attributed to T. The *creative* theory asserts that E creates T; the *formative* theory asserts that E forms or organizes T; the *identity* theory asserts that E is T.

It is characteristic of creative idealism, the most naïve variety of the theory, to dispense wholly with analysis of E, T, and R^e. In other words, the necessity of the relationship is not deduced from the nature of its elements. One is held to be justified in asserting it without any previous definition of thing or ego or consciousness. Thus one might assert that "esse est percipi," or that "die Welt ist meine Vorstellung" without express reference to the nature of "esse," "percipi," "die Welt," "meine," or "Verstellung." There would remain as evidence for the assertion only the invariable agreement of the elements denoted by these words. One finds no "esse" that is not perceived, no "Welt" that is not an ego's idea. But the method of agreement, unless tested by the method of difference, affords no proof; especially when, as in this case, there is an accidental reason for the invariability of the agreement. To rely on or employ invariable agreement when unsupported by other evidence is to commit that elementary fallacy, of which *post hoc ergo propter hoc* is the most common case. It is unnecessary for me to urge that this fallacy has been not infrequently committed, and that it has served on the whole as the favorite means of beguiling innocent minds into the vestibule of subjectivistic philosophies. But the degree to which this fallacy is virtually involved in the more advanced reasoning of idealism, is not, I think, sufficiently recognized.

Let us consider, for example, what I have called the "formative" theory, reducible to the proposition, E forms T. This epistemology owes its chief claim to distinction to the fact that it starts from an analysis of T, and is therefore more rational than the creative theory. It is shown that every T involves the same group of ideas or categories, so that it is possible to define *thing in general* in terms of that group. More specifically, it is shown that everything involves such formal characters as shall enable it to stand in determinate relations with all other things. Since everything must belong to truth, and since truth is one and systematic, everything must possess the logical qualifications for membership in one universal system.

Now it is evident that this is not as yet idealistic. And yet, for some reason, it is often regarded as equivalent to idealism, or as being only one inevitable step short of idealism. This is easily explained if we allow for the surreptitious or unconscious use of the ego-centric predicament. Thus, the categories may be introduced not as the conditions of being, but as the conditions of "experience," or consciousness of being. But this means that things are already construed as instances of the $(E)R^e$ relationship. Doubtless whatever is necessary to things is necessary to the knowledge of them; so that one may regard ontological constants as cognitive constants. But this proves that knowledge is a function of things, and not that things are a function of knowledge. The latter assertion, unless new evidence is introduced, is simply a *petitio principii*. That this fact should so easily escape notice is due, I think, to the presumption that since things are severally found in the $(E)R^e$ relationship, that relationship must be necessary to them. It is easy to beg the question because whatever one makes the starting-point of the analysis is in fact "my object." Building the results of the analysis about this, the total system becomes a system of consciousness.

But there is another motive that contributes to a looseness of reasoning here. The categories are ideas rather than sensations; they are the fruit of analysis, detached from the empirical context by thought. They do not belong to the individuals of nature. But where, then, do they belong? Now most modern philosophers scarcely regard it as necessary to prove that categories, relations, and ideas, are essentially modes of thought; and in this they are aided and abetted by common sense. For, since the overthrow of scholasticism, philosophy and common sense alike have been habitually nominalistic. Empiricists and rationalists differ only in that with the former nominalism is given a sceptical emphasis, while with the latter it is given a constructive emphasis. But to adopt a nominalistic interpretation of the categories, to regard them as acts of consciousness, is to commit oneself forthwith to idealism. *Are* categories necessarily related to a knower, *are* they conditioned by the relationship $R^e(E)$? Here again we meet with the ego-centric predicament. It is impossible to find a relation without a comparison of terms, it is impossible to find a fundamental logical concept that is not conceived. Since I can not find a category without knowing it in the manner required by categories, I can find no category that is not a mode of thought. But since this clearly has to do with the circumstances conditioning my investigation, it must be discounted in my conclusions concerning the thing investigated. If I allow it to create the slightest presumption one way or the other, and

rely on that presumption in further inferences, my construction is vicious and ungrounded.

While I very much doubt if any idealistic theory is untainted by this error, it is possible to define a third variety of the theory in which the error is much less conspicuous. This variety I have called the "identity" theory, because it reduces to the proposition: E is T. This theory also bases itself on an analysis of T, or of T so far as intelligible and true. It is held that every T is definable in terms of relations through which it is connected with every other T. So far formative and identical theories agree. But in the latter more attention is given to the implications of a relational definition. If T' is definable in terms of $R(T^2)$, then $R(T^2)$ must be internal to T', or, $(T')R(T^2)$ must be identical with T'. At the same time, $(T')R(T^2)$ must be identical with T^2. Furthermore, since T' and T^2 are defined by $(T')R(T^2)$, and not $(T')R(T^2)$ by T' and T^2, or, since $(T')R(T^2)$ is intelligible *per se*, while T' and T^2 are intelligible only in terms of $(T')R(T^2)$, the latter must be held to be prior to the former, as their ground, source, or explanation. In other words, in order that being shall be definable, it must be construed as a whole which is both identical with its parts, and also prior to them. Now this conclusion *may be* regarded as equivalent to a *reductio ad absurdum* of the relational definition; in which case it is necessary to establish idealism on entirely different grounds.[2] But what some idealists regard as beneath reason, other idealists regard as the ideal of reason. It is conceded that the conception of a whole which is both prior to, and identical with, its parts will not hold of any whole of nature, such as mechanism or organism. Nor is it possible to define it abstractly, using symbols for terms and relations. If the attempt be made it will result only in such self-contradictions as T' is identical with $(T')R(T^2)$, or $(T')R(T^2)$ is prior to T'. Indeed, if it were possible to discover this type of whole and part relationship in nature or the realm of logic, it would be impossible to infer idealism from it.[3] But it is contended that there is a unique

[2] I am thinking of Mr. Bradley in particular. For him the absolute is a means of dispensing altogether with relations, and hence is not argued from the necessity of a consciousness that shall supply relations. Mr. Bradley's idealism ("We perceive, on reflection, that to be real, or even barely to exist, must be to fall within sentience." "Appearance and Reality," p. 144) is, so far as I can see, either a pure assumption, or a loose and unwarranted inference from the ego-centric predicament.

[3] Thus Professor Royce's contention that the part is equal to the whole in an infinite system, would prove only that being is infinite, and not that it is in any sense conscious. His subjectivism is, so far as I can see, not proven at all. In "The Conception of God" and in certain more recent verbal utterances he would seem to be exploiting the ego-centric predicament. In "The World

complex in which this relationship is directly and luminously exhibited, that complex being consciousness.[4]

The crucial and more neglected question yet remains, however. Why should it be asserted that the self, subject, or ego is both identical with each of its objects and also prior to them? Why should knowledge be construed as "self-representation," "self-externalization" or "self-positing"? Now the answer to this question lies, in part, I am convinced, in a certain readiness among philosophers to assert *anything* of consciousness. It would appear that there is no conception too paradoxical to be harbored there. The proposition, gold is gold, is redundant, and the proposition, blue is its own other is nonsense; but the propositions, I am I, and, the self is its own other, somehow pass for intelligible discourse. Similarly, while a planetary system which is identical with each planet and prior to them, is clearly a doubtful proposition, men nod their heads sagely when they hear of a self which can dispense with its own parts, and also be wholly present to each of them. So long as the self remains obscure and unanalyzed, loosely denoted by such terms as "I," "ego," or "subject," it will doubtless afford a refuge for logical lawlessness.

But apart from this general disposition to laxity and high-handedness, how are we to account for the assertion that the thing known and the knower, the *T* and the *E*, are identical. Unless there is ground for such an assertion the conception of a whole that is identical with each of its parts and prior to them, can not be saved

and the Individual," he relies mainly on the contention that, since nothing in the universe can be strictly independent of anything else, objects can not be independent of ideas. But, as I have endeavored to point out above, this would prove that the universe can be defined in terms of anything you choose.

[4] "The unity is at once the whole of which the individuals are parts, and also completely present in every individual." "It still remains true that it is that particular relation of which the only example known to us is consciousness." McTaggart, "Studies in the Hegelian Cosmology," pp. 14, 19.

"There is need of a single term to describe a One which is not a system, and for this purpose the capitalized word Individual, as qualified by the indefinite article, answers as well as any other known to the writer. It will later appear that only a self can be, in this sense, an Individual. . . . An Individual, on the other hand, has an existence fundamental, logically prior, to that of the parts or of the members. It is not separate from them, but it is distinguishable from them. It is fundamental to the parts, whereas the parts, though they are real, are not absolutely essential to it: it expresses itself in the parts, instead of being made up of them." Calkins, "The Persistent Problems of Philosophy," pp. 378–379.

I should regard this as a rather incautious statement of the argument; not untrue to Hegel, but so express in its recognition of the priority of the whole self over its several acts or objects as to be exposed to the charge of naïve spiritualism.

from its inherent self-contradictions. As a general conception it is not to be distinguished from the obsolescent notion of substance, or of a thing-essence which is all of its attributes, and yet none of them. That it does not share the hard fate of the latter notion is due to the supposition that it is saved by special revelation. Although in general it is absurd, we are supposed to be unable to deny it because of the discovery of an unmistakable case of it. The fact being so strange, we must overcome our prejudice against fiction. We should not be entitled to invent a universal or absolute knower, identical with its objects severally, and prior to all of them, unless we had evidence that a knower, and a knower alone, is capable of just that sort of relationship. Hence everything is staked on an examination of such instances of knowing as can be observed.

It is asserted that in any typical case of knowing $(E)R^c(T)$, the knower (E) and the thing known (T) are identical. But if we mean by E and T *the terms of this relationship*, then they are clearly not identical; for their identity would destroy the relationship, and the operation would lose its complexity. If, on the other hand, I mean by E and T *the complete* or *essential* natures of the entities referred to, then they do not stand in the cognitive relation. Thus I may assert that E is really $(E)R^c(T)$, and that T is also really $(E)R^c(T)$, and that E and T are therefore really identical. But $(E)R^c(T)$ does not stand in the relation R^c to $(E)R^c(T)$; in other words, *I know T* does not know *I know T*. In any case, then, it is impossible to assert that the knower and the thing known are identical, where these are defined as the terms of one cognitive relationship.[5]

Now if it be so simple a matter to refute the assertion that in the complex $(E)R^c(T)$, E is T, how are we to account for that assertion? Only, I think, through the characteristic confusion of mind created by the ego-centric predicament. The T of the complex $(E)R^c(T)$ does, as a matter of fact, stand in the relation R^c to E. This can not be denied, albeit it is a redundant proposition when affirmed. It is only necessary to proceed, loosely and as may suit one's convenience, to substitute $(E)(R^c)(T)$ for T, or *thing qua known* for thing, and one has accomplished the miracle of identifying a complex with one of its own elements. Then, the other element having been dealt with in the same manner, the two elements are made equal to an identical complex, and hence to each other. But the whole question of the extent to which $(E)(R^c)T$ can be substituted for T, depends on a very precise knowledge of the bearing of this relationship on T. The original problem, *What does*

[5] It is evident that such considerations as these would necessitate a revision of certain current notions of "self-consciousness." But I can not follow up the suggestion here.

$(E)R^c(T)$ *mean to* T*?* has, in all this elaborate dialectic, only been prejudged and confused. And the solution offered is not only without a shred of evidence, but is charged with the support of a logical abortion.

I have not undertaken to do more than to isolate a species of dangerous reasoning that infests a certain region of philosophical inquiry. The question of the precise modification which a thing undergoes when it is known, is a proper problem; and the theory that that modification is profound, or even in some sense definitive, is a legitimate speculative alternative. But nothing whatsoever can be inferred from the mere ubiquity of that modification, from the mere fact that nothing can be found which is not thus modified. This self-evident fact simply defines the means that must be employed for the solution of the problem. We can not employ a method which in other cases proves a convenient preliminary step, the empirical, denotative method of agreement and difference. There remains, however, the method which must eventually be employed in any exact investigation, the method of analysis. The mere fact that T is invariably found in a certain complex, since it can not be corrected by the method of difference, must be set aside, and not allowed to weigh in our calculations. But we may still have recourse to that analysis of all the elements of the complex, of T, E, and R^c, which would be required in any case before our conclusions could assume any high degree of exactness. Having discovered just what an ego is, just what a thing is, and just what it means for an ego to know a thing, we may hope to define precisely what transpires when a thing is known by an ego. And until these more elementary matters have been disposed of we shall do well to postpone an epistemological problem that is not only highly complicated but of crucial importance for the whole system of philosophical knowledge.

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EDUCATIONAL PSYCHOLOGY IN THE SECONDARY SCHOOL[1]

THERE seem many reasons to believe that educational psychology has at the present day reached a critical stage in its development. Having for some years past enjoyed the approval of theorists on education, it is at length beginning to attract the attention of those actually engaged in the practise of teaching. Should it fail now to justify itself in the eyes of the latter, there can be no

[1] Paper read before the British Psychological Society.

doubt that it will suffer a setback from which it will take many years to recover. Should, on the other hand, experienced teachers admit its claims, the results of school practise, expressed accurately in psychological terms, will go to swell the science itself, and we shall at last have—what we have *not* at present—an applied psychology of education.

The general objection to psychology brought forward by masters is that it teaches them little or nothing definite which they did not know originally or could not quickly gain from school experience. The majority would probably be willing to admit that the science is of general use in setting the mind in a certain direction, much as logic and methodology are. Their distrust of it for direct application is due mainly, I think, to the unsatisfactory state of the psychology of reasoning. The science of psychology fails just where the science of education has principal need of it. One of the prime functions of education is supposed to be the general or formal training of the intellect; but not even the possibility of such a formal training has yet been demonstrated. Much vague talk is indulged in by the unpsychological master about the "training of the logical faculty" imparted by different school disciplines. From a psychological point of view, reasoning is a question of matter as well as of form, and only scientific observation and experiment are competent to decide the relative importance of each. Theories of mental systems, apperception masses, etc., are far too general and vague for practical application. The division of conceptual process into *comparison* and *abstraction* on the one hand, and various forms of *constructive process* (as it is called) on the other—both classes being recognized as *productive process* working on the material supplied by memory and association—is likewise too vague a schema as it stands, although full of suggestion for more thoroughgoing analysis.

Modern experimental psychology, by employing experiment, simplifying the conditions, and, above all, by endeavoring to obtain quantitative answers to its questions, has placed itself in a much more promising position. Its ideal comes much closer to that of an applied science, such as the educational psychology of the future must be. Its methods, too, are such as must command ultimate success, if granted sufficient opportunity of application in the schools. An enumeration of the more prominent of these methods will show, however, that there is reason to fear that such opportunity may not be forthcoming to any great extent.

There is, in the first place, a large class of experiments for the investigation of the phenomena of practise and fatigue. Apart from the internal criticisms that can be passed on the ergographic, esthesiometric, and other tests employed, the fatigue measured in

cases where no such criticism is applicable has been that produced by mechanical processes such as addition and multiplication under artificial conditions of interest, etc., so that the results can hardly be taken as typical for intellectual work done under school conditions.

For the determination of individual differences in mental capacity, innumerable tests have been devised, such as the relative and absolute thresholds in the various realms of sensation, the mean variation for these thresholds (taken as a measure of the attention), the estimation of space and time, reaction-times, the crossing out of words containing certain stated letters in a page of print, tachistoscopic experiments on perceptual processes (*e. g.*, reading), determination of association times; and so-called combination tests, such as those of Ebbinghaus, in which omitted words and syllables of pieces of prose have to be supplied by the subject. To many of these the objection can be made that they do not directly measure general mental capacity, and that the interpretation of their results as symptoms or signs of such is very uncertain; others do directly measure mental processes involved in intellectual work, but under conditions so artificial and so greatly simplified that their results are not readily applicable to ordinary experience.

In theory all these methods are justifiable, and in pure psychology they all find a rightful place. Yet it is extremely doubtful whether secondary schools will be ready, either now or in the immediate future, to devote the requisite amount of time for the application of such methods.[2] Schools have their own methods of measurement in the marking system, if system it can be called; and reform is more likely to come from within this system than from artificial experiment. Such a reform would have to be based on a most detailed analysis of the psychological processes involved in the learning of the various school subjects, and allocation of marks accordingly. The present system of taking the entire subject (*e. g.*, Latin or mathematics) as the unit is useless for scientific purposes, and the determination of correlation-coefficients for different pairs of subjects on the basis of *aggregate* marks is simply waste of time and trouble. Yet knowledge of the precise relations between one subject and another would be of the greatest help in the drawing up of a curriculum, and such knowledge would be obtainable from the correlation-coefficients[3] of corresponding fundamental mental processes involved in the learning of the two subjects. Assuming sufficient

[2] In *primary* schools the experiments and tests above mentioned would in themselves possess considerable educational value, so that the objection propounded in the text would not apply in their case.

[3] For explanation of the principle of *correlation* and methods of calculating correlation-coefficients, see Karl Pearson: "Grammar of Science," 2d edition, Ch. X.; also see below.

constancy of marking and a sufficient number of measurements, the correlation-coefficients calculated might in their turn be used to throw light on the accuracy of the original psychological analysis.

Of course, the scientific analysis of a school subject, such as Latin or mathematics, is essentially a logical analysis, but if considered with reference to the demands made on the mind of the learner by the subject and the method of teaching the subject, and also with reference to the matter in which the logical forms are inherent, a psychological analysis emerges, which indeed closely follows, although it does not altogether coincide with, the logical one. Method has systematized each subject as a body of knowledge in which any one stage is logically as important and indispensable as any other; but for the learner these stages are of different values—make unequal demands on his memory, attention, etc., as is shown by the varying amounts of time and practise needed to surmount them.

Let us take mathematics as an illustration. Has mathematics a psychology as well as a logic? The subject is held to be unrivaled in its power of training the reasoning faculty. Now, Professor James, in his treatment of the psychology of reasoning, sums up the process as follows:[4]

"1. An extracted character is taken as equivalent to the entire datum from which it comes.

"2. The character thus taken suggests a certain consequence more obviously than it was suggested by the total datum as it originally came."

The psychological factors at work are, then, according to Professor James, "dissociation by varying concomitants" and "association by similarity."

These processes certainly occur at all stages of mathematical reasoning, but practical experience points to the need of a more extended analysis. The difference between problems and theorems in geometry, the exceptional difficulty experienced by many boys in grasping the mathematical principle of proportion, the astonishing variations in memory, apart from variations of interest, attaching to different parts of mathematics, stand out so prominently in practise and with such uniformity that psychological factors of great constancy and generality must be assumed to account for them.

Introspection gives little help in the analysis. Beyond individual differences in the form and vividness of the mental imagery employed, little can be thus directly distinguished. So much of the process seems to be subconscious, or even unconscious, that the greater part of its dissection will be achieved, if at all, only by the application of indirect methods.

[4] "Principles of Psychology," Vol. II., p. 340.

The method which I wish to suggest in this short paper is one based on the determination of *correlation-coefficients,* deriving its measurements from a *differential system of marking.* Of course, such a differential system of marking in itself presupposes some amount of preliminary analysis, but for this the logical analysis of the school-subject and the broad psychological distinctions already recognized by teachers provide an adequate first step. The subsequent course of the investigation would be, as it were, circular and yet progressive. The correlation-coefficients first calculated would point to more detailed psychological analysis, and this in its turn would increase the number and accuracy of coefficients subsequently obtained. Even after the limits of direct psychological analysis had been passed, the coefficients might yet serve to draw attention to the existence of psychological factors only observable in their physiological effects. The principle of this form of analysis by correlation-coefficients is common to all the objective sciences, though probably better known as "the method of concomitant variation." For the purposes of this paper it may be briefly stated thus: presumption of connection between any two processes, *i. e.,* of the existence of a still deeper-lying process common to both, will vary in strength in direct proportion to the size of the coefficient of correlation between them, calculated according to any of the well-known and approved methods.

The program sketched in outline above is one suited rather for the secondary than for the primary school, since it is one to be carried out, if at all, by the masters themselves. That it is a workable scheme, assuming psychological qualification and psychological interest on the part of the masters, I have little doubt.[5] Control experiments with trained subjects in the psychological laboratory would of course be simultaneously necessary, *i. e.,* the student of applied educational psychology would need to work hand in hand with the psychological specialist; but here again there should be found no insurmountable difficulty.

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[5] Towards the close of last year (1908), the writer applied the correlation-method indicated above to the analysis of elementary mathematical ability as displayed by a set of about eighty boys in an English public school. All the boys were examined on the same papers, and the coefficients that have been obtained show a tendency to harmonise with one another and with practical experience to a degree very encouraging for the method. The evaluation of the results (with corrections for the effects of extraneous conditions) is still in progress. An account of the research will be published shortly.

DISCUSSION

A PHILOSOPHICAL PLATFORM FROM ANOTHER STANDPOINT

THE discussion concerning the question of a philosophical platform by Professor Schmidt,[1] aside from its intrinsic interest suggests a related if not dependent problem. What is the situation which presents itself to the student with specialized equipment who would enter the field of philosophical research? To answer this query let us turn aside from the more systematic world views and consider the discussions of the minor problems in current literature and more particularly in the periodicals. The first point to be remarked is the arbitrary nature of the choice in many of the subjects investigated. It appears that any topic in the whole realm of philosophy which may happen to appeal to the author becomes the object of attention. Granted that valuable conclusions may be reached, I question if much, if not the major part, of such effort does not fail in its service because of its isolated character, because the investigation lacks integration in some greater problem which has consciously originated it and which will eventually absorb its conclusions. In these cases such integration is largely a matter of chance and by no means a necessary or even probable outcome of the study. Again, it is observed that owing to fundamental differences in methods of procedure substantially the same point may come up repeatedly for consideration and individual results be obtained, and yet the fact is obscured by lack of unity in expression. In order, therefore, to appreciate the bearings of a conclusion, and thereby render it a contribution one must first translate the material into the logical form consistent with another context.

Now this absence of direction in the multiplicity of philosophical efforts results in a perplexing outlook to the would-be-investigator and is scarcely an inspiring situation. For the impetus to endeavor must lie in the hope of some definite achievement, some positive contribution, however small that may be. One may be informed in the history of philosophical doctrines and be cognizant of the development of ideas therein embodied and thence obtain little or no light upon the solution of these difficulties.

Is it impossible from the nature of the subject to establish something akin to the method employed in a biological laboratory? The chief of a laboratory may suggest problems to be investigated or the subordinate worker himself may originate the subject, but in either case the question is one which finds its place in some larger problem; individual contributions are coordinated into a greater whole.

[1] This JOURNAL, Vol. VI., p. 673.

If the coordination in philosophical inquiry prove not immediately feasible in the shape of one "philosophical platform," perhaps an approach to this as an ideal would be the establishment of a limited number of schools of philosophy, differentiated by their fundamental diversities in the formulations of problems. Then at least within the limits of each school similar methods would be employed and a common language spoken and combined efforts would crystallize in a single body of truth. The resulting explicit statements of the distinctive attitudes of the various schools would itself be a step toward the elimination of the differences in standpoint.

But whatever this may be worth as a suggestion, the main purport of these remarks is to call attention to the condition of affairs which confronts the student in philosophy and the connection of this situation with the absence of definite coordination among philosophers.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Philosophy of Change. D. P. RHODES. New York: The Macmillan Co. 1909. Pp. xxv + 389.

If the passion to set one's house in order never reached the attic; if it left one's intellectual furnishings where the deliveryman dropped them, the paper and string about them, the varnish dull with the shipper's thumbprints, or even the packing-cases unopened, there would be neither philosophers nor philosophy. When, therefore, as in the instance of Mr. Rhodes and his book, this passion flares up in the heart of a small householder who, the reviewer judges, does not earn his salt by practising it in the schools; when, in short, such a one tries to arrange his ideas in that neatness of pattern which is called philosophical, it ill becomes professional thinkers to stay his hand, be it by violence, scoffing, or neglect. Let the labor union, if it will, brickbat the "scab" and the amateur of its trade; the philosophical band that does likewise sins against its own spirit (and, if it persists, may some day find itself to be a suicide club).

But writers like Mr. Rhodes make open-mindedness a hard virtue for his critics. He ignores, as a matter of conscience, all other philosophers; neither their names nor their opinions appear in his pages, even for reproof. Emulating Descartes—unwittingly?—he destroyed even the notes in which he had recorded his own arguments for and against the views of his "notable predecessors," banished all books from his study, "and with no implements further than pencil and spotless paper, a few brass pins, and a tennis-ball, I set about inquiring seriously into the destiny of man. I even tried to forget who they were that had said anything on the subject before, or that there were such things as jealousies and fashions in philosophy." This method having been tried often enough since Augustine and found weak, the philosopher who sets his house in order by it

will tempt few visitors over the threshold in these fact-surfeited days. Nor will the first chapter of "The Philosophy of Change," where Mr. Rhodes applies his method, encourage the few to inspect the rest of the edifice. Here the windows are slits, and only two; the glass in them is very blue, and the antechamber chairs creak pitifully under the weight of the leanest critic. Here we find that there are no certainties in life and only two truths of highest probability. These are (1) that "every particular experience is illusory," and (2) "experience, illusory though it be in every particular, must nevertheless possess some significance." It is neither Plato nor Kant nor Hume that speaks, though, but Heraclitus, and Heraclitus Revividus outdoes his elder self. Mr. Rhodes would have gone lost in the common run of idealists and subjectivists, and he stopped, after discarding into the trash-pile of illusion substance, matter, and things in general. But he deals a stroke of genius—albeit genius of the kind most nearly allied to madness—when he serves with the same rude toss the holiest of holy philosophical entities, the idea. Thus runs the blasphemy:

> "Ideas must be interdependent and incapable of being isolated . . . from the most remote appearances of the substance-world (which is itself all illusion). Each idea exists solely by virtue of the change in its relations to all other ideas and substance-appearances. The idea of a pebble is conditioned by all other pebbles and ideas of them. An idea of altruism is conditioned by the equally general ideas of egoism, humanity, love, etc., all of which are continuously changing. The existing idea of change is conditioned by the equally general idea of the impossible, and is made up of the invariably unexploited factors in particular ideas and substance-appearances. An idea can not endure; it is continuously being supplanted, . . . even the idea of change. . . . Ideas, in sum, are not things changing, but change."

This, of course, means only one thing as to consciousness itself, and Mr. Rhodes clearly sees what that is: "Consciousness is not a thing apart nor an essential property of, or resident in any thing; it is a symbol popular in the present age." The broom-work in his housecleaning is now done; nothing is left save change. And his discussion of change proves that he has well emancipated himself from all previous philosophy. "There can not be more than one kind of change;" what appear to be varieties of change "consist in differences of position in the fixed order of change." Again, "Change can not be derived from something else, for the fact of derivation would merge its antecedent with itself." "Change could have no kind of beginning or end. If it began, it must already have been changed by virtue of the beginning; if it ended, the end would show that it still existed." In brief, there is only one immutable, and that same is change itself! Mr. Rhodes holds in reserve for us only one more audacious exhibition of Zenonian dialectic, to wit, the argument, from the above doctrine of change, that reality is the limit of existence (limit here carrying its mathematical significance). Or, as his formula puts it: "Reality = that which *is* = that which may not *become* = the impossible."

Before all this school-bred critics must stand dumb. Mr. Rhodes's calm hypostases and swift equivocations are most repulsive. Not more

so in their lineaments than Mr. Bradley's; but, unlike Mr. Bradley's, they do not wear the garment of some long-loved orthodoxy. They bring up in none of "Uberweg's pigeonholes." No amiable, book-fearing old bondholder has endowed a university chair anywhere for their dissemination. Their absurdities are too new, too original, and too little suited to keep alive any tradition, good or bad. What possible interest, for example, can schoolman or laic find in the third chapter, the book's core, on "The Fiction of a Universe"? Mr. Rhodes here assumes at the outset that "there existed at a certain time in the past a universe which, as a whole or in any part, was devoid of geometrical form and which consisted of a measurable amount of continuous, homogeneous substance." This, we are told, is a hypothesis set up, not on astronomical or other facts, but only for the sake of avoiding the paradoxes of space and time. Just what it leads to, the reviewer has not been able to discover. Among other things, it revives the theory of continuous destruction and fresh creation of the physical universe. And, in the explanation of his "real cosmoids" (the elements of reality) as "the least possible *changes* of position," which themselves disappear when they have lived out their minimum change, Mr. Rhodes seems to have struck upon that most unusual notion of a "time atom," which an acute Persian philosopher named al-Baqilani once worked out in a fascinating atomistic monadism while Leibnitz's forebears were eating acorns in the European wilderness.

Whether the formulas of Mr. Rhodes's hypermechanics are truer or more fanciful than those which many theoretical physicists and mathematizing philosophers have been copiously writing of late, I do not know. They resemble these as homespun resembles factory stuff; indeed, whole pages from Mr. Rhodes echo, in the vernacular, the highly technical relativism of the "lines of force" theorists and the hypergeometers. Though loose and uninformed, they are plainly the residue of a prodigious amount of hard, earnest thinking. They are of the stuff that a teacher of philosophy might sigh for in undergraduate essays; they are the "poor but honest parents" of useful speculation. And what they lack in marked value they make up for with the grace of sincere modesty.

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The Meaning of Truth: A Sequel to "Pragmatism." WILLIAM JAMES. London, Bombay, and Calcutta: Longmans, Green, & Co. 1909. Pp. xxi + 298.

The paramount issue raised by pragmatism concerns the meaning of a true idea; and it is because this truth-question is a pivotal one, and because the "definitive settlement of it will mark a turning point in the history of epistemology," that this latest volume from Professor James has been prepared. The book is a collection of papers and addresses contributed by him at various times during the past twenty-five years, to which are added a few that are now published for the first time. The special purpose of this collection of writings is best stated in Professor James's own words: "In order to make my own thought more ac-

cessible to those who hereafter may have to study the (truth) question I have collected in the volume that follows all the work of my pen that bears directly on the truth-question" (Preface, p. viii). One effect which the massed impression of these writings should produce, is a sensible diminution in the number of the "misunderstanders" of pragmatism. Certainly, if this misunderstanding persists, it can not, I think, fairly be attributed to Dr. James himself. But whether the striking and luminous presentation of the doctrine of pragmatism in this volume and in its fellow volume, "Pragmatism," will effect any conversions, is another story. My own experience as an anti-pragmatist makes me sceptical of such a result. I know too well from personal experience the hardness of the unregenerate heart in these matters; the strength of mental habits and prepossessions, and the seductive power of the logic of "abstractionism," to expect that this new gospel will gain many converts in the present generation. Had this same volume fallen into my hands in my unregenerate days, I know well how it would have fared; I should have seen inconsistencies between the earlier and the later writings of James, I should have found, despite the vigorous disclaimer of its author, a radical divergence between the pragmatism of James and the Schiller-Dewey pragmatism; the epistemology would have been pronounced solipsistic, and the implied and consequent metaphysics, mere slush. If I now venture to say, that to-day I can discover in the writings of Dr. James, in this volume or elsewhere, none of these things, I think it not unlikely some of my quondam anti-pragmatist friends will say, I may have experienced a change of *heart,* but certainly not an improvement in my understanding. However, I will add in way of apology, that this change of mental view, I attribute mainly to my own attempts to remain an anti-pragmatist, and as such to meet the counter-attack of the pragmatist; to answer the crucial question relating to the meaning, the content, of a true idea, and the possibility of distinguishing between a true and a false idea. It dawned upon me at last, that to go on answering this pivotal question after the manner of intellectualism was about as effective in the way of defense as the device of the ostrich in protecting itself from assault by hiding its head under its wing.

But to return to this book. I think Dr. James has clearly carried the war into Africa, and distinctly put the rejecter of pragmatism upon the defensive. It is this aggressive front, this note of challenge, this forcing upon the anti-pragmatist an alternative that constitutes the strength and the strategic advantage of James's position. To begin with the truth-question, pragmatism gives a definition of the truth-relation, and the trueness of an idea in definite, concrete terms; he claims that this statement of what the idea actually does, or has the capacity for doing, exhausts the content of its meaning. The anti-pragmatist rejects this view; then the pragmatist challenges him to specify any significant and relevant element of meaning which his own definition of the terms—true—agreement with reality, etc., does not contain; and how does the anti-pragmatist meet this challenge? I must confess, that up to date, I know of no answers that are not either words without meaning or which do not in-

volve postulates, or assumptions that, when scrutinized, are found to be as useless as they are insusceptible of verification. In thus rejecting the pragmatist's definition of a true idea, the anti-pragmatist faces an alternative; and, to judge from my own endeavors in the past and from what I have read, it looks very much as if all that the pragmatist's opponents have yet done is to shut their eyes to the fact that a real alternative is *there* for them to face.

Again, the anti-pragmatist rejects, as the quintessence of error and confusion, the pragmatist's identification of the truth of an idea and the verification of that idea; to him, snugly ensconced in his logical categories and distinctions, there is a vital difference between the trueness of an idea and the knowledge of the fact that this idea is true. Is not the idea true the moment it is framed in somebody's mind? And does not this idea *remain* true even should no human knower at least ever discover that truth? The pragmatist replies by a counter-question: "If I have not given the correct account of truth and verification, show me what there is either in your idea itself, or in this supposed relation to its object, which gives any meaning to the statement. This idea was true prior to its verification." Here is the crux, the anti-pragmatist must face this alternative, either to give up his attempted distinction between the truth of an idea and the verifiability of this idea, or he must postulate some superhuman knower of this true idea; and then how will he show that this postulated knower is of any use to us would-be human knowers, either in enabling us to *know* whether our ideas are true or not true, or in giving us any consolation for our failure to know?

Once more, the pragmatism of James meets the objection that his epistemology issues in solipsism and achieves no true transcendence by the counter-question: If the object in the cognitive relation is not a kind of reality that can be led up to in experiential processes, if it be not the *terminus ad quem* of experiential workings, if it must possess some sort of perseity, thing in itselfness,—a transcendency pragmatism does not recognize—then tell us in what way this trûly real-being, this really *transcendent* can become known to us mortals. How is the chasm of *your* transcendence to be crossed? If the transcendence which knowledge involves is something which is not passable by *our* human ideas, as experience *in posse,* how can *we* ever know whether or not our ideas have bridged the chasm and made fast to a reality there? Again, the anti-pragmatist faces the alternative; either the epistemology of pragmatism or the unknowable.

Such, I think, is the legitimate force of the presentation of pragmatism made in this latest volume from the pen of William James. And the conclusion of the whole matter is: If the anti-pragmatists are to continue the fight, they must bring into action better artillery and better gunners; they must choose more strategic positions for attack; they must look well to their defenses, and at least provide for the contingency of a retreat.

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JOURNALS AND NEW BOOKS

THE PHILOSOPHICAL REVIEW. November, 1909. *French Works on the History of Philosophy During 1907–08* (pp. 583–599): VICTOR DELBOS. – The works described show a good historic method and a sufficient spirit of objectivity, the most important treat of the history of philosophy in connection with the history of science. It is hoped that future historians will take greater account of the links between philosophic doctrines and the diverse manifestations of the religious spirit. *Individuality and Freedom* (pp. 600–614): ELLEN BLISS TALBOT. – The concept of individuality may be analyzed into unity, uniqueness, and self-sufficiency. The denial of real alternations is not inconsistent with the affirmation of each of these factors, and, therefore, of individuality. *The Postulates of a Self-critical Epistemology* (pp. 615–641): EDWARD GLEASON SPAULDING. – A self-critical epistemology, as is revealed by the absolutist's typical criticism of pragmatism: (1) must make a consistent use of terms; (2) must be free from contradictions, either of part by part, or of part by whole, or conversely; (3) must presuppose and imply itself; (4) each postulate of a self-critical system will be implied by each of the others and by the system as a whole, and conversely each will be applicable to each and so, collectively, to the system as a whole, and the system as a whole, both to itself and to each; (5) by its own postulates and the definition derived from them, a self-critical system must anticipate and refute all external criticism. Three logical doctrines being set up experimentally, the foundations of such a self-critical epistemology can be set forth in fifteen postulates. Such a system can be described as an evolutionary realism and empiricism. *Reviews of Books:* Willy Kabitz, *Die Philosophie des jungen Leibnitz:* FRANK THILLY. John Watson, *The Philosophy of Kant Explained:* NORMAN SMITH. Albert Leclère, *La Morale rationelle dans ses relations avec la philosophie générale:* RALPH BARTON PERRY. H. A. Pritchard, *Kant's Theory of Knowledge:* WALTER T. MARVIN. *Notices of New Books. Summaries of Articles. Notes. Index.*

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE. Band XV., Heft 4. July, 1909. *Die Reihenfolge der Platonischen Schriften* (pp. 435–456): A. GOEDECKEMEYER. – The Republic is treated as the product of two different periods of Plato's life. The dialogues are classified according to their relation to Plato's socratic point of departure, his independent development, first, "erotic," and, second, dialectic, and his final submission to alien influences. *Die Tendenzen der platonischen Dialoge Theaitetos Sophistes Politikos* (pp. 456–492): J. EBERZ. – The Sophist is directed at Aristotle, who, having been gently corrected in the Parmenides, is here, after his secession, condemned. Theætetus is Dion, and and Socrates the younger is Speusippus. Further identifications are to follow. *Der νοῦς παθητικός bei Aristoteles* (pp. 493–510): P. BOKOWNEW. – The passive reason, as an hypothesis to explain the interaction of soul and reason, and so the unity of the soul, fails, because of Aristotle's

wavering between the rationalist and empiricist viewpoint. *Kant's Kritik der Reinen Vernunft und die Geschichte der Philosophie* (pp. 510–532): H. ROMUNDT. – The distinction between the history of criticism and that of the system of science was rightly grasped by Kant, and also his own place in that former history, as the modern counterpart of Socrates, the synthesis succeeding dogmatic thesis and sceptic antithesis. *Drittes Preisausschreiben der "Kantgesellschaft"* (pp. 533–535): The competition for these prizes closes April 22, 1910, and has for its subject, "What are the real advances that metaphysics has made in Germany since Hegel and Herbart?" *Il Problema metafisico secondo Aristotle e l'interpretazione d'un passo della metafisica* (pp. 436–450): P. EUSEBIETTI. – The passage is, Met. Lambda, 10, 1075, b 17–24. *Jahresbericht über die Philosophie im Islam III.* (pp. 553–563): M. HORTON. – *Die neuesten Erscheinungen.*

Carus, Paul. *Philosophy as a Science.* Chicago: The Open Court Publishing Co. 1909. Pp. ix + 213. $0.50.

De Wulf, Maurice. *History of Medieval Philosophy.* Translated by P. Coffey. London, New York, Bombay, and Calcutta: Longmans, Green, & Co. 1909. Pp. xii + 519.

Garrigou-Lagrange, Fr. R. *Le sens commun, la philosophie de l'être, et les formules dogmatiques.* Paris: Gabriel Beauchesne & Cie. 1909. Pp. xxx + 311.

Poulton, Edward Bagnall. *Charles Darwin and the Origin of Species: Addresses, etc., in America and England in the Year of the Two Anniversaries.* London, New York, Bombay, and Calcutta: Longmans, Green, & Co. 1909. Pp. xiv + 302.

Read, Carveth. *Natural and Social Morals.* London: Adam and Charles Black. 1909. Pp. xxv + 314.

NOTES AND NEWS

THE following abstract is from the *Athenæum* for December 24 of a paper by Professor W. R. Sorley on "The Interpretation of Evolution," read before the Section of Philosophy of the British Academy at its meeting on November 24: "The paper stated that the influence of 'The Origin of Species' was not restricted to biology; it extended to all the human sciences, and modified the philosophical attitude; through it emerged 'the philosophy of evolution' as (in Huxley's words) 'claimant to the throne of the world of thought.' The nature and validity of this claim require examination. The term 'evolution' itself is used with a variety of emphasis, and even of meaning. Sometimes the reference is to the theory of natural selection introduced by Darwin and Wallace; at other times the reference is to the theory of Organic Evolution, which gained precision and verifiability from the doctrine of natural selection, but is much older than, and possibly independent of, that doctrine; at yet other

times the reference is to the theory of Cosmic Evolution which, as worked out by Kant, and afterwards by Laplace, has a clear meaning only in application to inorganic nature. If evolution is to be set on 'the throne of the world of thought,' inorganic evolution and organic evolution must be somehow brought into line. The two processes have, as common characteristics, (1) continuity, (2) advance through antagonism, (3) alternating periods of stability and instability. But there is a *prima facie* distinction between the operative causes—between the mechanical forces in inorganic evolution and the vital processes postulated by organic evolution. The mechanical interpretation of evolution attempts to break down this distinction, and to account for vital processes in terms of physico-chemical process. But the difficulties in the way of this method of interpretation have not diminished during the last fifty years: (1) The origin of life remains an unsolved problem; careful experiments and the advance of microscopical science have shown that abiogenesis does not take place in the cases in which it was formerly thought that it did occur—or might occur. (2) Physiologists are, on the whole, less satisfied than they were in Darwin's lifetime with the adequacy of the physico-chemical explanation of the characteristic activities of the living body. (3) The theory of natural selection gave an impetus to the mechanical interpretation; but natural selection requires non-mechanical factors on which to act; and the rejection of the view that 'acquired characters' can be inherited has made the mechanical explanation of heredity almost unthinkable. If these points are admitted, the explanation given by mechanical causation is seen to be incomplete; the external factors have to be supplemented by the internal principle of life. In virtue of this principle the organism develops and preserves a certain structure, and reproduces its like; perhaps the same principle also influences the direction of evolution in interaction with environing conditions. Vital activity is therefore teleological, although the end which the organism realizes is not present to it in the form of idea. A vitalistic interpretation of evolution, however, is inadequate, because it leaves inorganic evolution out of account, and because it has no theory of the adaptation of external to internal factors; the conception of unconscious purpose is besides full of difficulty. If a unified interpretation of the whole course of evolution can be attained, and if it is granted that mechanism is inadequate, it will be only by means of the conception of conscious purpose. The difficulties of this interpretation consist chiefly in the conflict of ends and the imperfection of adaptations. No detailed solution of these difficulties can be offered; to some extent they arise from an assumption which must be guarded against; the purpose shown in evolution does not realize itself after the fashion of human design, which works mainly in an external and mechanical manner. In principle what is involved in the interpretation is an inversion of Spencer's postulate that 'we must interpret the more developed by the less developed.' Observations on various aspects of the problem were made by Mr. S. H. Hodgson, Professor Bosanquet, and the president."

THE program of the meeting of the Southern Society for Philosophy and Psychology held at Charlotte, North Carolina, on December 28 was as follows: "The Functions of the Anterior and Posterior Association Areas of the Cerebrum" Shepherd Ivory Franz; "Tests with a Modified Binet-Buzenet Æsthesiometer," David Spence Hill; "Voluntary Isolation of Control in a Group," Jasper C. Barnes; "The Visual and the Joint-muscle Source of the Size-weight Illusion," Robert H. Gault; "The Discrimination of Articulate Sounds by Raccoons," William T. Shepherd; "The Relative Value of the Affective and the Intellectual Processes in the Genesis of the Psychoses called Traumatic Neuresthenia," Tom A. Williams; Informal Reports from Psychological Laboratories; "The Consciousness of Meaning" and "Experiments on the Thought Process," Robert M. Ogden; "The Psychology of Prejudice," Josiah Morse; "The Concept of Laws of Nature," Edward E. Richardson; "The Evolution of the Sense of Beauty from the Point of View of Genetic and Social Psychology," William D. Furry; Address of the President: Subject, "The Concept of Evolution Among the Greeks," Albert Lefevre.

THE celebration of the eigth centennial anniversary of St. Anselm which was held on the twenty-first of last April at the church of Saint-Anselme at Rome has furnished the occasion to the *Revue de Philosophie* for an elaborate discussion of his personality and doctrines. The table of contents of the December issue is perhaps of interest as indicating the possibilities and limitations of such discussion. We quote it in full: "'Saint Anselme, son temps, son rôle,' A. Dufourcq; 'Le Milieu philosophique à l'époque de saint Anselme,' Comte Domel de Vorges; 'L'École du Bec et Saint Anselme,' A. Poree; 'Sur la question des sources d'Anselme,' A. Dräseke; 'La preuve ontologique de l'existence de Dieu et saint Anselme,' A. Lepidi; 'La démonstration a priori de l'existence de Dieu chez saint Anselme,' J. Geyser; 'Anselme et Gaunilon,' B. Adlhoch; 'Les rapports de la raison et de la foi dans la philosophie de saint Anselme,' E. Beurlier; 'La Théologie de saint Anselme,' J. Bainvel; 'La Sainteté en saint Anselme. Théorie et pretique,' B. Marechaux; Notes sur les fêtes du centenaire à Aoste."

ACCORDING to previous announcements, the American Philosophical Association held its annual meeting at New Haven, on invitation of Yale University and its department of philosophy, December 27–29, 1909. A report of the meeting of the Association will appear in a subsequent issue of the JOURNAL. Officers for the ensuing year were elected as follows: president, Professor C. M. Bakewell, of Yale University; vice-president, Professor A. O. Lovejoy, University of Missouri; secretary-treasurer, Professor E. G. Spaulding, of Princeton University; new members of the executive committee, Professor W. H. Sheldon, Dartmouth College, and Professor Norman Smith, Princeton University. Professor Frank Thilly, of Cornell University, was elected to fill the unexpired term of Professor Bakewell on the executive committee.

DR. MORTON PRINCE, of Boston, will give at the University of California from January to April a course of lectures on abnormal psychology.